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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/824,464	04/15/2004	Masahiro Hora	P25084	6197
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EXAMINER HOLLIDAY, JAIME MICHELE				
ART UNIT 2617		PAPER NUMBER		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/824,464

Applicant(s)

HORA ET AL.

Examiner

JAIME M. HOLLIDAY

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 April 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on April 21, 2009 has been entered.

Response to Arguments

2. Applicant's arguments filed April 21, 2009 have been fully considered but they are not persuasive.

Applicants basically argue that the prior art of record, in particular Mizutani et al., fails to disclose the group identification information that is a unique identifier for each group and that comprises (includes) user identification information of the terminal device of a member who forms the group and a time when said group is formed. Applicants further argue that the Mizutani reference only provides a valid time period for the group (which is not the time the group was formed, and merely indicates when the group will be terminated) along with a Group ID.

Examiner respectfully disagrees, in view of the 112 2nd paragraph rejection below. Applicants claim and are arguing the features of "group identification information." However, the specification of the present application only discloses "group

information" and "group ID," not the claimed "group identification information." The group ID of the specification is the combination of the user ID of the terminal that forms the group, time and date of the formation, while group information includes a list of information relevant to the group including the unique group ID. For the purpose of prosecution, Examiner will interpret the claimed "group identification information," to include the features of the group information disclosed in the application [see fig. 4A]. The Mizutani reference sends the group id, which is unique to the group (paragraph 46), along with the valid time period for the group. The time period is reflective of the time the group was started, since it defines how long from the start of the group that the current group communication is valid, as well as the time the group expires. Although a new group may be formed with the same party as a previous group (paragraph 45), it is also disclosed that the Group ID is unique to the **group** not the individual or parties (paragraph 46).

Therefore, in view of the preceding arguments, Examiner maintains previous rejections.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. **Claims 1-30** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1, 8, 10-17, 19-24 and 27-30 recite "group identification information," however, Applicants specification only discloses "group information" and "group ID." Therefore, the claimed phrase "group identification information" is indefinite. For the purpose of prosecution, Examiner will interpret the claimed "group identification information," to include the features of the group information disclosed in the application [see fig. 4A].

Claim Rejections - 35 USC § 103

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
7. **Claims 1-10, 13, 14, 17-20, 23 and 27-29** are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of **Waesterlid (WO 01/65807 A2)** and **Eiden et al. (US 2002/0168992 A1)** in view of **Kawaguchi et al. (US 2002/0037736 A1)**, and in further view of **Mizutani et al. (US 2001/0022780 A1)**.

Consider **claim 1**, Waesterlid clearly shows and discloses a mail exchange system comprising: a plurality of terminal devices connected to one another via a communications network, each terminal device having a member information storage that stores member information of members who belong to a group that exchange mail via said communications network, said plurality of the terminal devices comprising a specific member terminal, an existing member terminal, and a newly joining member terminal (connectionless status reporting method that allows members of an affinity group to send status information to and receive status information from other members of the affinity group, which is well-suited for mobile communication networks, wherein each member of the affinity group is provided with a communication device. Each communication device includes a memory for storing memory status information [pg. 2 lines 15-29]); participation mail receiver that receives a participation mail, including member information of a member who newly joins the group, from said newly joining member terminal via said communications network (user creating the affinity group [specific member terminal] becomes the owner of the group and is referred to as the group administrator, who also sends a membership request message inviting one or more other users to join the affinity group. Recipients of the membership request can reply to the invitation by sending a membership reply message either accepting or declining the invitation to join the affinity group [pg. 11 lines 17-22]); new member information mail transmitter that transmits a new member mail, including the member information of the newly joining

member, to said existing member terminal according to information stored in said member information storage via said communications network (after joining the affinity group, each existing member receives a group update message from the group administrator containing names of the other members to the affinity group [pg. 11 lines 23-25]); existing member terminal including a new member information mail receiver that receives the new member mail (each existing member receives a group update message that contains a list of all members of the group, including the newly added member [pg. 11 lines 23-25, pg. 14 lines 3-5]); newly joining member terminal including a new participation mail transmitter that transmits the new member mail, including self-member information of the newly joining member, to said specific member terminal via said communications network (recipients of the membership request can reply to the invitation by sending a membership reply message either accepting or declining the invitation to join the affinity group. Those accepting the invitation are added to the group along with the group administrator [pg. 11 lines 20-23]); existing member information mail receiver that receives the existing member mail from a plurality of existing member terminals (new members also receive a group update message that contains information concerning the existing members and their current status; when the status of a member changes, the peer sends a Status Update to every other peer in the affinity group [fig. 5, pg. 11 lines 1-14, 26-28]); group identification, information indicating the group exchanging the mail, is added to the mail to be exchanged among said terminal devices of the members

who belong to the group, and the group identification information comprises user identification information of the terminal device of a member who forms the group (membership request message contains data corresponding to each member of the affinity group, wherein the member data may include, for example, the name, address, telephone number, and current status of each member. When a group update message is sent to a messaging server and then forwarded to each member of the affinity group. The group update message contains a list of all members of the group, including the newly added member [pg.12 line 28- pg. 13 line 7, pg. 14 lines 2-14]).

However, Waesterlid fails to specifically disclose that the group member and current members extract the newly joined members' information.

In the same field of endeavor, Eiden et al. clearly show and disclose mail exchange system comprising a plurality of terminal devices connected to one another via a communications network, the plurality of the terminal devices comprising a specific member terminal, an existing member terminal, and a newly joining member terminal (a method and apparatus for joining a communication group between users of wireless communication devices, comprising at least two users (**302, 305**) of communication devices who are members of said group and capable of communicating with each other through communication devices, and at least one communication device user (**301**) not belonging to said group, who is capable of communicating with at least one member (**305**) of the communication group through a communication device

[abstract, fig. 3a)]; specific member terminal includes a first member information adder that extracts the member information included in the participation mail received by said participation mail receiver and stores the extracted member information in the member information storage (potential new member, i.e. applicant [newly joining member] applies for membership from an existing member of said group. The apply message comprises a request for membership in said group. The apply message also comprises at least one of the following identifiers: an identifier associated with the applicant, an identifier associated with the applicant's communication device, or both the above-mentioned identifiers [paragraphs 23-25]); said existing member terminal including a second member information adder that extracts the member information included in the received new member mail and stores the extracted member information in a member list in the member information storage (when there is a membership request, the group member forms a decision on whether the applicant is suitable to be a member of the group on the basis of the information, and if the member considers the applicant suitable to be a member of the group, the member votes for the membership of the applicant and transmits his reply as feedback information to the applicant and stores the received information of the applicant in his communication device, for instance in a database register, such as a group information matrix [paragraph 27]); existing member terminal includes a self-information mail transmitter that transmits an existing member mail, including self-member information, to said newly joining member terminal via said

communications network (when Member B receives information that E has become a member and the request for information related to the group, information on E's membership is updated in B's communication device. B sends the information to E (reference 317), which information can comprise for instance a welcome note to the new member, information on internal matters of the group, members or how the group works [fig. 3c, paragraph 35]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to allow wireless communication devices in the group to receive and store information on new members, and send their information in return as taught by Eiden et al., in the communication method of Waesterlid, in order to allow users to communicate in a group with other member wireless communication devices.

However, Waesterlid, as modified by Eiden et al., fails to specifically disclose that the received existing member mail is from terminals other than the specific member terminal.

In the same field of endeavor, Kawaguchi et al. clearly show and disclose member information generator that generates a member list stored in the member information storage by extracting the self-member information from the received existing member mail from the plurality of existing member terminals, other than the specific member terminal (upon receiving the group communication message **108**, the terminal **1D** registers a new administration information entry including the group identifier and the group kind extracted from

the received message in the provisional group list **250B**. The radio terminal **1B** which becomes the transmission source of the addition notice message 110 and other radio terminals (**1A, 1C**) of the CUG (closed communication) which have received the addition notice message **110** respectively generate the reception confirmation message **111** and transmits the message to the new terminal **1D** in a unicast manner. The reception confirmation message **111** includes a message kind code indicative of the reception confirmation, a destination terminal address (address of the radio terminal ID), a group identifier, a transmission terminal address and user information of transmission terminal. As the user information, the user name is set, for example [paragraphs 6, 83-85 and 88]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to allow a new terminal to extract information about members of a closed communication group upon joining the group as taught by Kawaguchi et al., in the communication method of Waesterlid, as modified by Eiden et al., in order to allow users to communicate in a group with other member wireless communication devices.

However, the combination of Waesterlid and Eiden et al., as modified by Kawaguchi et al., fails to specifically disclose that the time the group is formed is included in correspondence.

In the same field of endeavor, Mizutani et al. clearly show and disclose group identification information including user identification information of said terminal device of a member who forms the group and including a time when the

group is formed (a terminal that communicates sends a packet with appending the information about a valid time period of the group, as well as its own identification information, then a terminal that received the packet storing the identification information and the information about the valid time period that are included in the packet [fig. 3, paragraphs 12, 16]); wherein the group identification information is a unique identifier for each group, is generated at the terminal device of the member who forms the group, and is generated exclusively by said terminal device (communication terminal that desires to communicate in this party forms a momentary group with adjoining communication terminals and avoids the increase of the amount of communication attendant on broadcast by communicating only with the members of this group. The structure of the packet that is used consists of header and payload that is the content of data. The header consists of packet ID, valid time period of packet, hop count, group ID, originator ID, belonging to group time period, and error correcting code. Group ID **34** is a unique identifier given to a group [paragraphs 45, 46]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include within a transmitted packet, the life of the communication group and the group's ID as taught by Mizutani et al., in the communication method of Waesterlid and Eiden et al., as modified by Kawaguchi et al., in order to allow users to communicate in a group with other member wireless communication devices.

Consider **claim 2**, the combination of Waesterlid and Eiden et al., as modified by Kawaguchi et al. and Mizutani et al., clearly shows and discloses the claimed invention **as applied to claim 1 above**, and in addition Waesterlid further discloses terminal devices further comprise a withdrawal mail transmitter that transmits withdrawal mail, including information of withdrawal from the group, to said terminal devices of all members in a member list stored in said member information storage; a withdrawal mail receiver that receives the withdrawal mail, including the information of a withdrawing member, transmitted from said withdrawal mail transmitter of the terminal device of a withdrawing member; and a member information deleter that deletes the member information of the withdrawing member from the member list in the mail member information storage (a member of the affinity group can withdraw from the group by sending a resignation message to the group administrator. Receipt of a resignation message by the group administrator spawns a Group Update message deleting the resigning member from the group [pg. 12 lines 4]).

Consider **claim 3**, the combination of Waesterlid and Eiden et al., as modified by Kawaguchi et al. and Mizutani et al., clearly shows and discloses the claimed invention **as applied to claim 1 above**, and in addition Waesterlid further discloses specific member terminal further includes an invitation mail transmitter that transmits invite mail, including information for inviting participation in the group and self-member information, to said newly joining member terminal via said communications network (a first user sends a membership request

message to one or more prospective members whom the first user would like to join the affinity group [pg. 12 lines 18-21]); newly joining member terminal further includes an invitation mail receiver that receives the invite mail; and wherein said member information generator further generates the list in the member information storage based on the received invite mail (The membership request message contains data corresponding to each member of the affinity group, and when the prospective member accepts the request for membership message, the client application on the new member's communication device creates an affinity group database and stores it in memory [pg. 13 lines 3-4, lines 20-22]).

Consider **claim 4**, the combination of Waesterlid and Eiden et al., as modified by Kawaguchi et al. and Mizutani et al., clearly shows and discloses the claimed invention **as applied to claim 1 above**, and in addition Eiden et al. further discloses specific member terminal further includes a second self-information mail transmitter that transmits specific member mail, including self-member information, to said newly joining member terminal in response to the participation mail received by said participation mail receiver, wherein said newly joining member terminal further includes a specific member information mail receiver that receives the specific member mail, including the self-member information of the specific member (the applicant receives the feedback of the group member, i.e. feedback information that can for instance comprise a decision accepting or rejecting the membership. The feedback can also comprise at least one of the following identifiers: an identifier associated with the sender of

the feedback, i.e. group member, an identifier associated with the communication device of the sender of the feedback, or both above-mentioned identifiers [paragraph 24]); wherein said member information generator generates the member list stored in the member information storage based on the specific member mail received by said specific member information mail receiver (a database **421** comprises information, such as the group information matrix that comprises information like name, address and the like on the group members. In addition, the database comprises information on the member's properties, the member's device ID, the applicant's profile and properties, and information on transmitted and received messages. The database, which comprises a structural database and a message database, has a storage space for all structural information related to the group and for messages and user information [paragraph 37 and 45]).

Consider **claim 5**, the combination of Waesterlid and Eiden et al., as modified by Kawaguchi et al. and Mizutani et al., clearly shows and discloses the claimed invention **as applied to claim 1 above**, and in addition Waesterlid further discloses wherein the member list in the member information storage stores member information of members, who belong to the group (when the group update message is received by each member, the client application on the member's communication device takes appropriate action to add, delete or modify member records in the corresponding group database [pg. 14 lines 2-14]).

Consider **claim 6**, the combination of Waesterlid and Eiden et al., as modified by Kawaguchi et al. and Mizutani et al., clearly shows and discloses the claimed invention **as applied to claim 5 above**, and in addition Waesterlid further discloses user identification information that uniquely specifies each user is allocated to each of said terminal devices (the membership request message contains data corresponding to each member of the affinity group, wherein the member data may include, for example, the name, address, telephone number, and current status of each member. Only the group administrator can send a membership request message [pg.12 line 28- pg. 13 line 7]).

Consider **claim 7**, the combination of Waesterlid and Eiden et al., as modified by Kawaguchi et al. and Mizutani et al., clearly shows and discloses the claimed invention **as applied to claim 1 above**, and in addition Mizutani et al. further disclose each of the terminal devices includes a cellular phone (cellular phone that enables an on-demand type of group communication [paragraph 24]).

Consider **claim 8**, Waesterlid clearly shows and discloses mail exchange terminal device for exchanging mail with other mail exchange terminal devices via a communications network, comprising a member information storage that stores member information of a member, who belongs to a group exchanging mail (a connectionless status reporting method that allows members of an affinity group to send status information to and receive status information from other members of the affinity group, which is well-suited for mobile communication networks, wherein each member of the affinity group is provided with a

communication device. Each communication device includes a memory for storing memory status information [pg. 2 lines 15-29]); mail receiver that receives new member mail, including member information of a member who newly joins the group, from another mail exchange terminal device via said communications network (each existing member receives a group update message that contains a list of all members of the group, including the newly added member [pg. 11 lines 23-25, pg. 14 lines 3-5]); group identification information indicating the group exchanging the mail is added to the mail to be exchanged among said terminal devices of the members who belong to the group, and the group identification information comprises user information of the terminal device of a member who forms the group (membership request message contains data corresponding to each member of the affinity group, wherein the member data may include, for example, the name, address, telephone number, and current status of each member. When a group update message is sent to a messaging server and then forwarded to each member of the affinity group. The group update message contains a list of all members of the group, including the newly added member [pg.12 line 28- pg. 13 line 7, pg. 14 lines 2-14]).

However, Waesterlid fails to specifically disclose that the current members extract the newly joined members' information.

In the same field of endeavor, Eiden et al. clearly show and disclose mail exchange terminal device for exchanging mail with other mail exchange terminal devices via a communications network (a method and apparatus for joining a

communication group between users of wireless communication devices, comprising at least two users (302, 305) of communication devices who are members of said group and capable of communicating with each other through communication devices, and at least one communication device user (301) not belonging to said group, who is capable of communicating with at least one member (305) of the communication group through a communication device [abstract, fig. 3a]); member information adder that extracts the member information included in the received new member mail and stores the extracted member information in a member list stored in the member information storage (potential new member, i.e. applicant (newly joining member) applies for membership from an existing member of said group by transmitting an apply message to a member of the group. The apply message also comprises at least one of the following identifiers: an identifier associated with the applicant, an identifier associated with the applicant's communication device, or both the above-mentioned identifiers. When there is a membership request, the group member forms a decision on whether the applicant is suitable to be a member of the group on the basis of the information, and if the member considers the applicant suitable to be a member of the group, the member votes for the membership of the applicant and transmits his reply as feedback information to the applicant and stores the received information of the applicant in his communication device, for instance in a database register, such as a group information matrix [paragraphs 22, 23, 27]); mail transmitter that transmits

contact mail, including self-member information to said mail exchange terminal device of the newly joining member via said communications network (When Member B receives information that E has become a member and the request for information related to the group, information on E's membership is updated in B's communication device. B sends the information to E (reference 317), which information can comprise for instance a welcome note to the new member, information on internal matters of the group, members or how the group works [fig. 3c, paragraph 35]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to allow wireless communication devices in the group to receive and store information on new members, and send their information in return as taught by Eiden et al., in the communication method of Waesterlid, in order to allow users to communicate in a group with other member wireless communication devices.

However, Waesterlid, as modified by Eiden et al., fails to specifically disclose that the received existing member mail is from terminals other than the specific member terminal.

In the same field of endeavor, Kawaguchi et al. clearly show and disclose whereby said mail exchange terminal device of the newly joining member generates entries in a member list by extracting the self-member information from contact mail received from a plurality of mail exchange terminal devices of existing members, the existing members being other than a specific member that

sent an invite mail to said mail exchange terminal device of the newly joining member (upon receiving the group communication message **108**, the terminal **1D** registers a new administration information entry including the group identifier and the group kind extracted from the received message in the provisional group list **250B**. The radio terminal **1B** which becomes the transmission source of the addition notice message **110** and other radio terminals (**1A**, **1C**) of the CUG (closed communication) which have received the addition notice message **110** respectively generate the reception confirmation message **111** and transmits the message to the new terminal **1D** in a unicast manner. The reception confirmation message **111** includes a message kind code indicative of the reception confirmation, a destination terminal address (address of the radio terminal ID), a group identifier, a transmission terminal address and user information of transmission terminal. As the user information, the user name is set, for example [paragraphs 6, 83-85 and 88]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to allow a new terminal to extract information about members of a closed communication group upon joining the group as taught by Kawaguchi et al., in the communication method of Waesterlid, as modified by Eiden et al., in order to allow users to communicate in a group with other member wireless communication devices.

However, the combination of Waesterlid and Eiden et al., as modified by Kawaguchi et al., fails to specifically disclose that the time the group is formed is included in correspondence.

In the same field of endeavor, Mizutani et al. clearly show and disclose group identification information including user identification information of the terminal device of a member who forms the group and including a time when the group is formed (a communication method to perform an on-demand type of group communication among a plurality of communication terminals, wherein a terminal that communicates sends a packet with appending the information about a valid time period of the group, as well as its own identification information, then a terminal that received the packet storing the identification information and the information about the valid time period that are included in the packet [fig. 3, paragraphs 12, 16]); wherein the group identification information is a unique identifier for each group, is generated at the terminal device of the member who forms the group, and is generated by said terminal device (communication terminal that desires to communicate in this party forms a momentary group with adjoining communication terminals and avoids the increase of the amount of communication attendant on broadcast by communicating only with the members of this group. The header consists of packet ID, valid time period of packet, hop count, group ID, originator ID, belonging to group time period, and error correcting code. Group ID **34** is a unique identifier given to a group [paragraphs 45, 46]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include within a transmitted packet, the life of the communication group and the group's ID as taught by Mizutani et al., in the communication method of Waesterlid and Eiden et al., as modified by Kawaguchi et al., in order to allow users to communicate in a group with other member wireless communication devices.

Consider **claim 9**, the combination of Waesterlid and Eiden et al., as modified by Kawaguchi et al. and Mizutani et al., clearly shows and discloses the claimed invention **as applied to claim 8 above**, and in addition Waesterlid further discloses the received new member mail is transmitted from said mail exchange terminal device of a specific member, who already belongs to the group, to terminals of other members according to the list stored in the member information storage (the user creating the affinity group [specific member terminal] becomes the owner of the group and is referred to as the group administrator, who also sends a membership request message inviting one or more other users to join the affinity group. After joining the affinity group, each existing member receives a group update message from the group administrator containing names of the other members to the affinity group [pg. 11 lines 23-25]).

Consider **claim 10**, Waesterlid clearly shows and discloses mail exchange terminal device for exchanging mail with other mail exchange terminal devices via a communications network, comprising a member information storage that stores member information of a member, who belongs to a group for exchanging

mail (a connectionless status reporting method that allows members of an affinity group to send status information to and receive status information from other members of the affinity group, which is well-suited for mobile communication networks, wherein each member of the affinity group is provided with a communication device. Each communication device includes a memory for storing memory status information [pg. 2 lines 15-29]); mail receiver that receives participation mail, including member information of a member, who newly joins in the group, from a mail exchange terminal device of the newly joining member via said communications network (the user creating the affinity group [specific member terminal] becomes the owner of the group and is referred to as the group administrator, who also sends a membership request message inviting one or more other users to join the affinity group. Recipients of the membership request can reply to the invitation by sending a membership reply message either accepting or declining the invitation to join the affinity group [pg. 11 lines 17-22]); mail transmitter that transmits new member mail including the member information of the newly joining member to terminal devices of other existing members according to the list stored in the member information storage via said communications network (After joining the affinity group, each existing member receives a group update message from the group administrator containing names of the other members to the affinity group [pg. 11 lines 23-25]); group identification information indicating the group exchanging the mail is added to the mail to be exchanged among said terminal devices of the members who belong

to the group, and the group identification information comprises user information of the terminal device of a member who forms the group (the membership request message contains data corresponding to each member of the affinity group, wherein the member data may include, for example, the name, address, telephone number, and current status of each member. When a group update message is sent to a messaging server and then forwarded to each member of the affinity group. The group update message contains a list of all members of the group, including the newly added member [pg.12 line 28- pg. 13 line 7, pg. 14 lines 2-14]).

However, Waesterlid fails to specifically disclose that the group member extract the newly joined members information.

In the same field of endeavor, Eiden et al. clearly show and disclose mail exchange terminal device for exchanging mail with other mail exchange terminal devices via a communications network (a method and apparatus for joining a communication group between users of wireless communication devices, comprising at least two users (**302, 305**) of communication devices who are members of said group and capable of communicating with each other through communication devices, and at least one communication device user (**301**) not belonging to said group, who is capable of communicating with at least one member (**305**) of the communication group through a communication device [abstract, fig. 3a]); member information adder that extracts the member information included in the received mail and stores the extracted member

information in a member list stored in the member information storage (A potential new member, i.e. applicant [newly joining member] applies for membership from an existing member of said group. The apply message comprises a request for membership in said group. The apply message also comprises at least one of the following identifiers: an identifier associated with the applicant, an identifier associated with the applicant's communication device, or both the above-mentioned identifiers. When there is a membership request, the group member forms a decision on whether the applicant is suitable to be a member of the group on the basis of the information, and if the member considers the applicant suitable to be a member of the group, the member votes for the membership of the applicant and transmits his reply as feedback information to the applicant and stores the received information of the applicant in his communication device, for instance in a database register, such as a group information matrix, reading on the claimed “,” (paragraphs 22, 23, 27).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to allow wireless communication devices in the group to receive and store information on new members, and send their information in return as taught by Eiden et al., in the communication method of Waesterlid, in order to allow users to communicate in a group with other member wireless communication devices.

However, Waesterlid, as modified by Eiden et al., fails to specifically disclose that the received existing member mail is from terminals other than the specific member terminal.

In the same field of endeavor, Kawaguchi et al. clearly show and disclose wherein the other existing members transmit contact mail, including member information, to the terminal device of the newly joining member so that the newly joining member generates an entry in a member list by extracting the member information from the contact mail of the other existing members, other than a specific member that sent an invite mail to said mail exchange terminal device of the newly joining member (When the user of the terminal **1D** selects the group identifier, which is indicated by the group communication message and instructs the connection on the console screen, the terminal **1D** transmits a participation confirmation message **109** in a unicast manner to a transmission source of the group communication message (here, the radio terminal **1B**). The reception confirmation message **111** includes a message kind code indicative of the reception confirmation, a destination terminal address (address of the radio terminal ID), a group identifier, a transmission terminal address and user information of transmission terminal. The new terminal **1D** registers the transmission terminal address and the user information, which are extracted from the received reception confirmation message within a fixed time (T5) in the terminal list **260B** and thereafter participates in the group communication as a member of the CUG [paragraphs 6, 83-85 and 88]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to allow a new terminal to extract information about members of a closed communication group upon joining the group as taught by Kawaguchi et al., in the communication method of Waesterlid, as modified by Eiden et al., in order to allow users to communicate in a group with other member wireless communication devices.

However, the combination of Waesterlid and Eiden et al., as modified by Kawaguchi et al., fails to specifically disclose that the time the group is formed is included in correspondence.

In the same field of endeavor, Mizutani et al. clearly show and disclose group identification information including user identification information of the terminal device of a member who forms the group and including a time when the group is formed (a communication method to perform an on-demand type of group communication among a plurality of communication terminals, wherein a terminal that communicates sends a packet with appending the information about a valid time period of the group, as well as its own identification information, then a terminal that received the packet storing the identification information and the information about the valid time period that are included in the packet [fig. 3, paragraphs 12, 16]); wherein the group identification information is a unique identifier for each group, is generated at the terminal device of the member who forms the group, and is generated exclusively by said terminal device (communication terminal that desires to communicate in this party forms a

momentary group with adjoining communication terminals and avoids the increase of the amount of communication attendant on broadcast by communicating only with the members of this group. The header consists of packet ID, valid time period of packet, hop count, group ID, originator ID, belonging to group time period, and error correcting code. Group ID **34** is a unique identifier given to a group [paragraphs 45, 46]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include within a transmitted packet, the life of the communication group and the group's ID as taught by Mizutani et al., in the communication method of Waesterlid and Eiden et al., as modified by Kawaguchi et al., in order to allow users to communicate in a group with other member wireless communication devices.

Consider **claims 13, 19 and 23**, Waesterlid clearly shows and discloses mail exchange terminal device for exchanging mail with other mail exchange terminal devices via a communications network, comprising a memory that stores a program and data, a processor that executes said program, and a communications device that communicates with other mail exchange terminal devices, wherein said program stored in memory causes said processor to execute storing member information of existing members, who belong to a group for exchanging mail, in said memory in advance; computer-readable storage medium on which a program to be executed by each mail exchange terminal is recorded; and a carrier wave having a program data signal (a connectionless

status reporting method that allows members of an affinity group to send status information to and receive status information from other members of the affinity group, which is well-suited for mobile communication networks, wherein each member of the affinity group is provided with a communication device [fig. 2, pg. 2 lines 15-29, pg. 7 lines 17-28]); causing said communications device to receive a contact mail including member information of a member, who newly joins the group, from another mail exchange terminal device via the communications network (each existing member receives a group update message that contains a list of all members of the group, including the newly added member [pg. 11 lines 23-25, pg. 14 lines 3-5]); causing said communications device to transmit invite mail including self-member information to said mail exchange terminal device of the newly joining member via said communications network (a first user sends a membership request message to one or more prospective members whom the first user would like to join the affinity group [pg. 12 lines 18-21]); group identification information indicating the group exchanging the mail is added to the mail to be exchanged among said terminal devices of the members who belong to the group, and the group identification information comprises user information of the terminal device of a member who forms the group (the membership request message contains data corresponding to each member of the affinity group, wherein the member data may include, for example, the name, address, telephone number, and current status of each member. When a group update message is sent to a messaging server and then forwarded to each

member of the affinity group. The group update message contains a list of all members of the group, including the newly added member [pg.12 line 28- pg. 13 line 7, pg. 14 lines 2-14]).

However, Waesterlid fails to specifically disclose that the group member and current members extract the newly joined members' information.

In the same field of endeavor, Eiden et al. clearly show and disclose mail exchange terminal device for exchanging terminal devices via a communications network (a method and apparatus for joining a communication group between users of wireless communication devices, comprising at least two users (**302**, **305**) of communication devices who are members of said group and capable of communicating with each other through communication devices, and at least one communication device user (**301**) not belonging to said group, who is capable of communicating with at least one member (**305**) of the communication group through a communication device [abstract, fig. 3a]); extracting the member information included in the received contact mail and storing the extracted member information to said memory (a potential new member, i.e. applicant [newly joining member] applies for membership from an existing member of said group by transmitting said apply message by his communication device to a member of the group, preferably to all the group members that are within the range of the communication device of the applicant. The apply message also comprises at least one of the following identifiers: an identifier associated with the applicant, an identifier associated with the applicant's communication device,

or both the above-mentioned identifiers. When there is a membership request, the group member forms a decision on whether the applicant is suitable to be a member of the group on the basis of the information, and if the member considers the applicant suitable to be a member of the group, the member votes for the membership of the applicant and transmits his reply as feedback information to the applicant and stores the received information of the applicant in his communication device, for instance in a database register, such as a group information matrix [paragraphs 22, 23, 27]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to allow wireless communication devices in the group to receive and store information on new members, and send their information in return as taught by Eiden et al., in the communication method of Waesterlid, in order to allow users to communicate in a group with other member wireless communication devices.

However, Waesterlid, as modified by Eiden et al., fails to specifically disclose that the received existing member mail is from terminals other than the specific member terminal.

In the same field of endeavor, Kawaguchi et al. clearly show and disclose whereby said mail exchange terminal device of the newly joining member generates entries in a member list by extracting the self-member information from the invite mail from said communication device, the invite mail being received from existing members other than a specific member that sent an invite

mail to said mail exchange terminal device of the newly joining member (When the user selects the connection input key **41** and selects the new CUG **45** at the new terminal **1D**, the new calling message **101** is broadcast to a large number of unspecified radio terminals. Upon receiving the group communication message **108**, the terminal **1D** registers a new administration information entry including the group identifier and the group kind extracted from the received message in the provisional group list **250B**. The radio terminal **1B** which becomes the transmission source of the addition notice message **110** and other radio terminals (**1A**, **1C**) of the CUG (closed communication) which have received the addition notice message **110** respectively generate the reception confirmation message **111** and transmits the message to the new terminal **1D** in a unicast manner. The reception confirmation message **111** includes a message kind code indicative of the reception confirmation, a destination terminal address (address of the radio terminal **1D**), a group identifier, a transmission terminal address and user information of transmission terminal. The new terminal **1D** registers the transmission terminal address and the user information, which are extracted from the received reception confirmation message within a fixed time (T5) in the terminal list **260B** and thereafter participates in the group communication as a member of the CUG [paragraphs 6, 83-85 and 88]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to allow a new terminal to extract information about members of a closed communication group upon joining the

group as taught by Kawaguchi et al., in the communication method of Waesterlid, as modified by Eiden et al., in order to allow users to communicate in a group with other member wireless communication devices.

However, the combination of Waesterlid and Eiden et al., as modified by Kawaguchi et al., fails to specifically disclose that the time the group is formed is included in correspondence.

In the same field of endeavor, Mizutani et al. clearly show and disclose group identification information including user identification information of the terminal device of a member who forms the group and including a time when the group is formed (a communication method to perform an on-demand type of group communication among a plurality of communication terminals, wherein a terminal that communicates sends a packet with appending the information about a valid time period of the group, as well as its own identification information, then a terminal that received the packet storing the identification information and the information about the valid time period that are included in the packet [fig. 3, paragraphs 12, 16]); wherein the group identification information is a unique identifier for each group, is generated at the terminal device of the member who forms the group, and is generated exclusively by the terminal device (communication terminal that desires to communicate in this party forms a momentary group with adjoining communication terminals and avoids the increase of the amount of communication attendant on broadcast by communicating only with the members of this group. The header consists of

packet ID, valid time period of packet, hop count, group ID, originator ID, belonging to group time period, and error correcting code. Group ID **34** is a unique identifier given to a group [paragraphs 45, 46]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include within a transmitted packet, the life of the communication group and the group's ID as taught by Mizutani et al., in the communication method of Waesterlid and Eiden et al., as modified by Kawaguchi et al., in order to allow users to communicate in a group with other member wireless communication devices.

Consider **claims 14, 20 and 24**, Waesterlid clearly shows and discloses mail exchange terminal device for exchanging mail with other mail exchange terminal devices via a communications network, comprising a memory that stores a program and data, a processor that executes said program, and a communications device that communicates with other mail exchange terminal devices, wherein said program stored in memory causes said processor to execute storing member information of existing members, who belong to a group for exchanging mail, in said memory in advance; computer-readable storage medium on which a program to be executed by each mail exchange terminal is recorded; and a carrier wave having a program data signal (a connectionless status reporting method that allows members of an affinity group to send status information to and receive status information from other members of the affinity group, which is well-suited for mobile communication networks, wherein each

member of the affinity group is provided with a communication device. Each communication device includes program memory **112** and a microprocessor **110**, wherein the microprocessor controls the operation of the device according to the instructions stored in the memory [fig. 2, pg. 2 lines 15-29, pg. 7 lines 17-28]); causing said communications device to receive a contact mail including member information of a member, who newly joins the group, from another mail exchange terminal device via the communications network (each existing member receives a group update message that contains a list of all members of the group, including the newly added member [pg. 11 lines 23-25, pg. 14 lines 3-5]); causing said communications device to transmit new member mail, including the member information of the newly joining member, to said mail exchange terminal device of the existing member via said communications network (the user creating the affinity group becomes the owner of the group and is referred to as the group administrator, who also sends a membership request message inviting one or more other users to join the affinity group. After joining the affinity group, each existing member receives a group update message from the group administrator containing names of the other members to the affinity group [pg. 11 lines 17-25]); group identification information indicating the group exchanging the mail is added to the mail to be exchanged among said terminal devices of the members who belong to the group, and the group identification information comprises user information of the terminal device of a member who forms the group (The membership request message contains data corresponding to each member of

the affinity group, wherein the member data may include, for example, the name, address, telephone number, and current status of each member. The group update message contains a list of all members of the group, including the newly added member [pg.12 line 28- pg. 13 line 7, pg. 14 lines 2-14]).

However, Waesterlid fails to specifically disclose that the group member and current members extract the newly joined members' information.

In the same field of endeavor, Eiden et al. clearly show and disclose mail exchange terminal device for exchanging terminal devices via a communications network (a method and apparatus for joining a communication group between users of wireless communication devices, comprising at least two users (**302**, **305**) of communication devices who are members of said group and capable of communicating with each other through communication devices [abstract, fig. 3a]); extracting the member information included in the received contact mail and storing the extracted member information to said memory (A potential new member, i.e. applicant [newly joining member] applies for membership from an existing member of said group by transmitting said apply message by his communication device to a member of the group, preferably to all the group members that are within the range of the communication device of the applicant. The apply message also comprises at least one of the following identifiers: an identifier associated with the applicant, an identifier associated with the applicant's communication device, or both the above-mentioned identifiers. When there is a membership request, the group member forms a decision on

whether the applicant is suitable to be a member of the group on the basis of the information, and if the member considers the applicant suitable to be a member of the group, the member votes for the membership of the applicant and transmits his reply as feedback information to the applicant and stores the received information of the applicant in his communication device, for instance in a database register, such as a group information matrix [paragraphs 22, 23, 27]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to allow wireless communication devices in the group to receive and store information on new members, and send their information in return as taught by Eiden et al., in the communication method of Waesterlid, in order to allow users to communicate in a group with other member wireless communication devices.

However, Waesterlid, as modified by Eiden et al., fails to specifically disclose that the received existing member mail is from terminals other than the specific member terminal.

In the same field of endeavor, Kawaguchi et al. clearly show and disclose whereby said mail exchange terminal device of the newly joining member generates entries in a member list by extracting the self-member information from the contact mail from a plurality of mail exchange terminal devices of existing members, the existing members being other than a member that sent an invite mail to the newly joining member (a group communication method, which can autonomously build up a closed communication network among a plurality of,

unspecified communication terminals. Upon receiving the group communication message **108**, the terminal **1D** registers a new administration information entry including the group identifier and the group kind extracted from the received message in the provisional group list **250B**. When the user of the terminal **1D** selects the group identifier, which is indicated by the group communication message and instructs the connection on the console screen, the terminal **1D** transmits a participation confirmation message **109** in a unicast manner to a transmission source of the group communication message (here, the radio terminal **1B**). The reception confirmation message **111** includes a message kind code indicative of the reception confirmation, a destination terminal address (address of the radio terminal **1D**), a group identifier, a transmission terminal address and user information of transmission terminal. The new terminal **1D** registers the transmission terminal address and the user information, which are extracted from the received reception confirmation message within a fixed time (T5) in the terminal list **260B** and thereafter participates in the group communication as a member of the CUG [paragraphs 6, 83-85 and 88]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to allow a new terminal to extract information about members of a closed communication group upon joining the group as taught by Kawaguchi et al., in the communication method of Waesterlid, as modified by Eiden et al., in order to allow users to communicate in a group with other member wireless communication devices.

However, the combination of Waesterlid and Eiden et al., as modified by Kawaguchi et al., fails to specifically disclose that the time the group is formed is included in correspondence.

In the same field of endeavor, Mizutani et al. clearly show and disclose group identification information including user identification information of the terminal device of a member who forms the group and including a time when the group is formed (a communication method to perform an on-demand type of group communication among a plurality of communication terminals, wherein a terminal that communicates sends a packet with appending the information about a valid time period of the group, as well as its own identification information, then a terminal that received the packet storing the identification information and the information about the valid time period that are included in the packet [fig. 3, paragraphs 12, 16]); wherein the group identification information is a unique identifier for each group, is generated at the terminal device of the member who forms the group, and is generated exclusively by the terminal device (A communication terminal that desires to communicate in this party forms a momentary group with adjoining communication terminals and avoids the increase of the amount of communication attendant on broadcast by communicating only with the members of this group. The header consists of packet ID, valid time period of packet, hop count, group ID, originator ID, belonging to group time period, and error correcting code. Group ID 34 is a unique identifier given to a group [paragraphs 45, 46]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include within a transmitted packet, the life of the communication group and the group's ID as taught by Mizutani et al., in the communication method of Waesterlid and Eiden et al., as modified by Kawaguchi et al., in order to allow users to communicate in a group with other member wireless communication devices.

Consider **claim 17**, Waesterlid clearly shows and discloses method for exchanging mail among terminal devices connected to one another via a communications network, each terminal device having a member information storage that stores member information of members who belong to a group for exchanging mail (a connectionless status reporting method that allows members of an affinity group to send status information to and receive status information from other members of the affinity group, which is well-suited for mobile communication networks, wherein each member of the affinity group is provided with a communication device. Each communication device includes a memory for storing memory status information [pg. 2 lines 15-29]), comprising: transmitting participation mail, including member information of a member who newly joins the group, to a terminal device of a specific member from said terminal device of the newly joining member via said communications network (recipients of the membership request replying to the invitation by sending a membership reply message either accepting or declining the invitation to join the affinity group. Those accepting the invitation are added to the group along with

the group administrator [pg. 11 lines 20-23]); receiving the participation mail at the terminal device of the specific member (the user creating the affinity group [specific member terminal] becomes the owner of the group and is referred to as the group administrator, who also sends a membership request message inviting one or more other users to join the affinity group. Recipients of the membership request can reply to the invitation by sending a membership reply message either accepting or declining the invitation to join the affinity group [pg. 11 lines 17-22]); transmitting new member mail, including the member information of the newly joining member, to terminal devices of other existing members from said terminal device of the specific member via said communications network according to the member information stored in said storage of said terminal device of the specific member (after joining the affinity group, each existing member receives a group update message from the group administrator containing names of the other members to the affinity group [pg. 11 lines 23-25]); receiving the new member mail at said terminal devices of the other existing members (each existing member receives a group update message that contains a list of all members of the group, including the newly added member [pg. 11 lines 23-25, pg. 14 lines 3-5]); receiving the contact mail at said terminal device of the new member (new members also receive a group update message that contains information concerning the existing members and their current status [pg. 11 lines 26-28]); group identification information indicating the group exchanging the mail is added to the mail to be exchanged among said terminal devices of the members who

belong to the group, and the group identification information includes user information of the terminal device of a member who forms the group (membership request message contains data corresponding to each member of the affinity group, wherein the member data may include, for example, the name, address, telephone number, and current status of each member. When a group update message is sent to a messaging server and then forwarded to each member of the affinity group. The group update message contains a list of all members of the group, including the newly added member [pg.12 line 28- pg. 13 line 7, pg. 14 lines 2-14]).

However, Waesterlid fails to specifically disclose that the group member and current members extract the newly joined members' information.

In the same field of endeavor, Eiden et al. clearly show and disclose method for exchanging mail among terminal devices connected to one another via a communications network, each terminal device having a member information storage that stores member information of members who belong to a group for exchanging mail (a method and apparatus for joining a communication group between users of wireless communication devices, comprising at least two users (**302**, **305**) of communication devices who are members of said group and capable of communicating with each other through communication devices, and at least one communication device user (**301**) not belonging to said group, who is capable of communicating with at least one member (**305**) of the communication group through a communication device [abstract, fig. 3a]); extracting the member

information of the newly joining member from the received participation mail at said terminal device of the specific member and storing the extracted member information to said storage (A potential new member, i.e. applicant [newly joining member] applies for membership from an existing member of said group. The apply message also comprises at least one of the following identifiers: an identifier associated with the applicant, an identifier associated with the applicant's communication device, or both the above-mentioned identifiers [paragraphs 22 and 23]); and extracting the member information of the newly joining member from the new member mail received from said terminal devices of the specific member at said terminal device of the other existing members and storing the extracted member information in the storages of the terminal devices (When there is a membership request, the group member forms a decision on whether the applicant is suitable to be a member of the group on the basis of the information, and if the member considers the applicant suitable to be a member of the group, the member votes for the membership of the applicant and transmits his reply as feedback information to the applicant and stores the received information of the applicant in his communication device, for instance in a database register, such as a group information matrix [paragraph 27]); transmitting contact mail including the members information of the existing member to said terminal devices of the new members from said terminal device of the existing member via said communications network (When Member B receives information that E has become a member and the request for

information related to the group, information on E's membership is updated in B's communication device. B sends the information to E (reference 317), which information can comprise for instance a welcome note to the new member, information on internal matters of the group, members or how the group works [fig. 3C, paragraph 35]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to allow wireless communication devices in the group to receive and store information on new members, and send their information in return as taught by Eiden et al., in the communication method of Waesterlid, in order to allow users to communicate in a group with other member wireless communication devices.

However, Waesterlid, as modified by Eiden et al., fails to specifically disclose that the received existing member mail is from terminals other than the specific member terminal.

In the same field of endeavor, Kawaguchi et al. clearly show and disclose extracting the member information of the existing members from the received contact mail at said terminal device of the new member and storing the extracted member information in said storage as a plurality of entries, wherein each entry is generated in response to an individual contact mail received from an associated individual terminal device of an existing member, other than the specific member (a group communication method, which can autonomously build up a closed communication network among a plurality of, unspecified communication

terminals. When the user of the terminal **1D** selects the group identifier, which is indicated by the group communication message and instructs the connection on the console screen, the terminal **1D** transmits a participation confirmation message **109** in a unicast manner to a transmission source of the group communication message (here, the radio terminal **1B**). The radio terminal **1B** which becomes the transmission source of the addition notice message **110** and other radio terminals (**1A**, **1C**) of the CUG (closed communication) which have received the addition notice message **110** respectively generate the reception confirmation message **111** and transmits the message to the new terminal **1D** in a unicast manner. The reception confirmation message **111** includes a message kind code indicative of the reception confirmation, a destination terminal address (address of the radio terminal **1D**), a group identifier, a transmission terminal address and user information of transmission terminal. The new terminal **1D** registers the transmission terminal address and the user information, which are extracted from the received reception confirmation message within a fixed time (**T5**) in the terminal list **260B** and thereafter participates in the group communication as a member of the CUG [paragraphs 6, 83-85 and 88]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to allow a new terminal to extract information about members of a closed communication group upon joining the group as taught by Kawaguchi et al., in the communication method of Waesterlid,

as modified by Eiden et al., in order to allow users to communicate in a group with other member wireless communication devices.

However, the combination of Waesterlid and Eiden et al., as modified by Kawaguchi et al., fails to specifically disclose that the time the group is formed is included in correspondence.

In the same field of endeavor, Mizutani et al. clearly show and disclose group identification information including user identification information of the terminal device of a member who forms the group and including a time when the group is formed (a communication method to perform an on-demand type of group communication among a plurality of communication terminals, wherein a terminal that communicates sends a packet with appending the information about a valid time period of the group, as well as its own identification information, then a terminal that received the packet storing the identification information and the information about the valid time period that are included in the packet [fig. 3, paragraphs 12, 16]); wherein the group identification information is a unique identifier for each group, is generated at the terminal device of the member who forms the group, and is generated exclusively by the terminal device (A communication terminal that desires to communicate in this party forms a momentary group with adjoining communication terminals and avoids the increase of the amount of communication attendant on broadcast by communicating only with the members of this group. The header consists of packet ID, valid time period of packet, hop count, group ID, originator ID,

belonging to group time period, and error correcting code. Group ID **34** is a unique identifier given to a group [paragraphs 45, 46]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include within a transmitted packet, the life of the communication group and the group's ID as taught by Mizutani et al., in the communication method of Waesterlid and Eiden et al., as modified by Kawaguchi et al., in order to allow users to communicate in a group with other member wireless communication devices.

Consider **claim 18**, the combination of Waesterlid and Eiden et al., as modified by Kawaguchi et al. and Mizutani et al., clearly shows and discloses the claimed invention **as applied to claim 17 above**, and in addition Waesterlid further discloses transmitting withdrawal mail including information, indicating that a member corresponding to a terminal device is withdrawing from the group, to all other terminal devices from the withdrawing terminal device according to the stored member information; wherein the withdrawal mail is received at each of the other terminal devices; and wherein the member information corresponding to the received withdrawal mail is deleted from said member information storage at each of the other terminal devices (a member of the affinity group can withdraw from the group by sending a resignation message to the group administrator. Receipt of a resignation message by the group administrator spawns a Group Update message deleting the resigning member from the group [pg. 12 lines 4]).

Consider **claims 27-30**, the combination of Waesterlid and Eiden et al., as modified by Kawaguchi et al. and Mizutani et al., clearly shows and discloses the claimed invention **as applied to claims 1, 8, 17 and 19 above**, respectively, and in addition Mizutani et al. further disclose wherein the group identification information consists essentially of the user identification information of the terminal device of the member who forms the group and at least one of the time when the group is formed and a date when the group is formed (a terminal that communicates sends a packet with appending the information about a valid time period of the group, as well as its own identification information, then a terminal that received the packet storing the identification information and the information about the valid time period that are included in the packet [fig. 3, paragraphs 12, 16]).

8. **Claims 11, 12, 15, 16, 21, 22, 25 and 26** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Waesterlid (WO 01/65807 A2)** in view of **Kawaguchi et al. (US 2002/0037736 A1)**, and in further view of **Mizutani et al. (US 2006/0019702 A1)**.

Consider **claim 11**, Waesterlid clearly shows and discloses mail exchange terminal device for exchanging mail with other mail exchange terminal devices via a communications network, comprising a member information storage that stores member information of a member, who belongs to a group for exchanging mail (a connectionless status reporting method that allows members of an affinity group to send status information to and receive status information from other

members of the affinity group, which is well-suited for mobile communication networks, wherein each member of the affinity group is provided with a communication device. Each communication device includes a memory for storing memory status information [pg. 2 lines 15-29]; invitation mail receiver that receives invite mail for inviting participation in a group for exchanging mail that is already formed by a user of a specific mail exchange terminal device via said communications network (The membership request message contains data corresponding to each member of the affinity group, and when the prospective member accepts the request for membership message, the client application on the new member's communication device creates an affinity group database and stores it in memory, reading on the claimed [pg. 12 lines 18-21, pg. 13 lines 3-4, lines 20-22]); mail transmitter that transmits participation mail, including self-member information of a newly joining member, to the specific mail exchange terminal device via said communications network at the time of joining the group in response to participation invited by the received invite mail (Recipients of the membership request can reply to the invitation by sending a membership reply message either accepting or declining the invitation to join the affinity group. Those accepting the invitation are added to the group along with the group administrator [pg. 11 lines 20-23]); existing member information mail receiver that receives contact mail including member information of other existing members, which is transmitted from the mail exchange terminal devices of other existing members via said communications network in response to the participation mail

transmitted to said mail exchange terminal device of the specific member (new members also receive a group update message that contains information concerning the existing members and their current status [pg. 11 lines 26-28]); group identification information indicating the group exchanging the mail is added to the mail to be exchanged among said terminal devices of the members who belong to the group, and the group identification information includes user information of the terminal device of a member who forms the group (The membership request message contains data corresponding to each member of the affinity group, wherein the member data may include, for example, the name, address, telephone number, and current status of each member. The group update message contains a list of all members of the group, including the newly added member [pg.12 line 28- pg. 13 line 7, pg. 14 lines 2-14]).

However, Waesterlid fails to specifically disclose that the contact mail is from existing members and not the specific member.

In the same field of endeavor, Kawaguchi et al. clearly show and disclose member information generator that generates in a member information storage a member list that stores member information of a member, who belongs to the group, based on the received invite mail and the received contact mail, wherein an entry in the member list is generated from member information extracted from the received contact mail, the received contact mail being received from the mail exchange terminal devices of the other existing members, other than the specific mail exchange terminal device (Upon receiving the group communication

message **108**, the terminal **1D** registers a new administration information entry including the group identifier and the group kind extracted from the received message in the provisional group list **250B**. When the user of the terminal **1D** selects the group identifier, which is indicated by the group communication message and instructs the connection on the console screen, the terminal **1D** transmits a participation confirmation message **109** in a unicast manner to a transmission source of the group communication message (here, the radio terminal **1B**). The reception confirmation message **111** includes a message kind code indicative of the reception confirmation, a destination terminal address (address of the radio terminal **1D**), a group identifier, a transmission terminal address and user information of transmission terminal. As the user information, the user name is set, for example. The new terminal **1D** registers the transmission terminal address and the user information, which are extracted from the received reception confirmation message within a fixed time (T5) in the terminal list **260B** and thereafter participates in the group communication as a member of the CUG [paragraphs 6, 83-85 and 88]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to allow a new terminal to extract information about members of a closed communication group upon joining the group as taught by Kawaguchi et al., in the communication method of Waesterlid, in order to allow users to communicate in a group with other member wireless communication devices.

However, Waesterlid, as modified by Kawaguchi et al., fail to specifically disclose that the time the group is formed is included in correspondence.

In the same field of endeavor, Mizutani et al. clearly show and disclose group identification information including user identification information of the terminal device of a member who forms the group and including a time when the group is formed (a terminal that communicates sends a packet with appending the information about a valid time period of the group, as well as its own identification information, then a terminal that received the packet storing the identification information and the information about the valid time period that are included in the packet [fig. 3, paragraphs 12, 16]); wherein the group identification information is a unique identifier for each group, is generated at the terminal device of the member who forms the group, and is generated exclusively by said terminal device (a communication terminal that desires to communicate in this party forms a momentary group with adjoining communication terminals and avoids the increase of the amount of communication attendant on broadcast by communicating only with the members of this group. The header consists of packet ID, valid time period of packet, hop count, group ID, originator ID, belonging to group time period, and error correcting code. Group ID 34 is a unique identifier given to a group [paragraphs 45, 46]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include within a transmitted packet, the life of the communication group and the group's ID as taught by Mizutani et al., in

the communication method of Waesterlid, as modified by Kawaguchi et al., in order to allow users to communicate in a group with other member wireless communication devices.

Consider **claim 12**, Waesterlid clearly shows and discloses mail exchange terminal device for exchanging mail with other mail exchange terminal devices via a communications network, comprising a member information storage that stores member information of a member, who belongs to a group for exchanging mail (a connectionless status reporting method that allows members of an affinity group to send status information to and receive status information from other members of the affinity group, which is well-suited for mobile communication networks, wherein each member of the affinity group is provided with a communication device. Each communication device includes a memory for storing memory status information [pg. 2 lines 15-29]); mail transmitter that transmits mail to a mail exchange terminal device of another member, who belongs to the group, via said communications network according to the member information stored in said member information storage; a withdrawal mail transmitter that transmits withdrawal mail including information of withdrawal from the group to mail exchange terminal devices of all other members listed in the stored member information via said communications network; a withdrawal mail receiver that receives withdrawal mail, including information, which indicates that another member is withdrawing from the group, from another mail exchange terminal device via said communications network (A member of the affinity group

can withdraw from the group by sending a resignation message to the group administrator. Receipt of a resignation message by the group administrator spawns a Group Update message deleting the resigning member from the group [pg. 12 lines 4]); group identification information indicating the group exchanging the mail is added to the mail to be exchanged among said terminal devices of the members who belong to the group, and the group identification information includes user information of the terminal device of a member who forms the group (The membership request message contains data corresponding to each member of the affinity group, wherein the member data may include, for example, the name, address, telephone number, and current status of each member. The group update message contains a list of all members of the group, including the newly added member [pg.12 line 28- pg. 13 line 7, pg. 14 lines 2-14]).

However, Waesterlid fails to specifically disclose that the resigning member deletes member information.

In the same field of endeavor, Kawaguchi et al. clearly show and disclose member information deleter that deletes member information of all members from said member information storage belonging to the group in response to the withdrawal mail transmitter transmitting the withdrawal mail, wherein the member information deleter is configured to delete an member information in the member information storage corresponding to the withdrawing member based on the received withdrawal mail (the leaving terminal 1D transmits a leaving

communication message **112** in a multicast manner to the constituting terminals of the CUG having the selected group identifier, and thereafter deletes the administration information entry having the group identifier from the group list **250B** and deletes the terminal list **260B** corresponding to the administration information entry. Upon receiving the leaving communication message **112**, other constituting terminals (**1A**, **1B**, **1C**) of the CUG delete the address of the leaving terminal **1D** which the received message indicates from the terminal lists **260B** and inform the security manager processing part of the leaving communication message **112** and cancels the P-P connection permission of the leaving terminal **1D** [paragraphs 6, 89-92]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to allow a new terminal to extract information about members of a closed communication group upon joining the group as taught by Kawaguchi et al., in the communication method of Waesterlid, in order to allow users to communicate in a group with other member wireless communication devices.

However, Waesterlid, as modified by Kawaguchi et al., fail to specifically disclose that the time the group is formed is included in correspondence.

In the same field of endeavor, Mizutani et al. clearly show and disclose group identification information including user identification information of the terminal device of a member who forms the group and including a time when the group is formed (a terminal that communicates sends a packet with appending

the information about a valid time period of the group, as well as its own identification information, then a terminal that received the packet storing the identification information and the information about the valid time period that are included in the packet [fig. 3, paragraphs 12, 16]); wherein the group identification information is a unique identifier for each group, is generated at the terminal device of the member who forms the group, and is generated exclusively by said terminal device (a communication terminal that desires to communicate in this party forms a momentary group with adjoining communication terminals and avoids the increase of the amount of communication attendant on broadcast by communicating only with the members of this group. The header consists of packet ID, valid time period of packet, hop count, group ID, originator ID, belonging to group time period, and error correcting code. Group ID **34** is a unique identifier given to a group [paragraphs 45, 46]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include within a transmitted packet, the life of the communication group and the group's ID as taught by Mizutani et al., in the communication method of Waesterlid, as modified by Kawaguchi et al., in order to allow users to communicate in a group with other member wireless communication devices.

Consider **claim 15, 21 and 25**, Waesterlid clearly shows and discloses mail exchange terminal device for exchanging mail with other mail exchange terminal devices via a communications network, comprising a memory that stores

a program and data, a processor that executes said program, and a communications device that communicates with other mail exchange terminal devices, wherein said program stored in memory causes said processor to execute storing member information of existing members, who belong to a group for exchanging mail, in said memory in advance; computer-readable storage medium on which a program to be executed by each mail exchange terminal is recorded; and a carrier wave having a program data signal (a connectionless status reporting method that allows members of an affinity group to send status information to and receive status information from other members of the affinity group, which is well-suited for mobile communication networks, wherein each member of the affinity group is provided with a communication device. Each communication device includes program memory **112** and a microprocessor **110**, wherein the microprocessor controls the operation of the device according to the instructions stored in the memory [fig. 2, pg. 2 lines 15-29, pg. 7 lines 17-28]); causing the communications device to receive an invitation mail inviting participation in a group, which is already formed by users of other mail exchange terminal devices, from a mail exchange terminal device of a specific member via said communications network (The membership request message contains data corresponding to each member of the affinity group, and when the prospective member accepts the request for membership message, the client application on the new member's communication device creates an affinity group database and stores it in memory [pg. 12 lines 18-21, pg. 13 lines 3-4, lines 20-22]); causing

the communications device to transmit participation mail, including self-member information of a newly joining member, to the mail exchange terminal device of the specific member via the communications network at the time of joining the group where participation was invited by the received invitation mail (Recipients of a membership request, sent by a first user or group administrator, can reply to the invitation by sending a membership reply message either accepting or declining the invitation to join the affinity group. Those accepting the invitation are added to the group along with the group administrator [pg. 11 lines 20-23]); causing the communications device to receive contact mail, which is transmitted from the mail exchange terminal devices of other existing members via said communications network in response to the mail transmitted to said mail exchange terminal device of the specific member, and includes member information of an existing member (new members also receive a group update message that contains information concerning the existing members and their current status [pg. 11 lines 26-28]); group identification information indicating the group exchanging the mail is added to the mail to be exchanged among said terminal devices of the members who belong to the group, and the group identification information includes user information of the terminal device of a member who forms the group (The membership request message contains data corresponding to each member of the affinity group, wherein the member data may include, for example, the name, address, telephone number, and current status of each member. The group update message contains a list of all

members of the group, including the newly added member [pg.12 line 28- pg. 13 line 7, pg. 14 lines 2-14]).

However, Waesterlid fails to specifically disclose that the contact mail is from existing members and not the specific member.

In the same field of endeavor, Kawaguchi et al. clearly show and disclose storing member information of members, who belong to the group, in said memory based on the received invitation mail and the received contact mail, by extracting member information from the received contact mail and generating an entry in a memory list for a member corresponding to the extracted member information, the received contact mail being received from the mail exchange terminal devices of the other existing members, other than the mail exchange terminal device of the specific member (Upon receiving the group communication message **108**, the terminal **1D** registers a new administration information entry including the group identifier and the group kind extracted from the received message in the provisional group list **250B**; the terminal **1D** transmits a participation confirmation message **109** in a unicast manner to a transmission source of the group communication message (here, the radio terminal **1B**). The reception confirmation message **111** includes a message kind code indicative of the reception confirmation, a destination terminal address (address of the radio terminal ID), a group identifier, a transmission terminal address and user information of transmission terminal. As the user information, the user name is set, for example. The new terminal **1D** registers the transmission terminal

address and the user information, which are extracted from the received reception confirmation message within a fixed time (T5) in the terminal list **260B** and thereafter participates in the group communication as a member of the CUG [paragraphs 6, 83-85 and 88]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to allow a new terminal to extract information about members of a closed communication group upon joining the group as taught by Kawaguchi et al., in the communication method of Waesterlid, in order to allow users to communicate in a group with other member wireless communication devices.

However, Waesterlid, as modified by Kawaguchi et al., fail to specifically disclose that the time the group is formed is included in correspondence.

In the same field of endeavor, Mizutani et al. clearly show and disclose group identification information including user identification information of the terminal device of a member who forms the group and including a time when the group is formed (a terminal that communicates sends a packet with appending the information about a valid time period of the group, as well as its own identification information, then a terminal that received the packet storing the identification information and the information about the valid time period that are included in the packet [fig. 3, paragraphs 12, 16]); wherein the group identification information is a unique identifier for each group, is generated at the terminal device of the member who forms the group, and is generated exclusively

by the terminal device (a communication terminal that desires to communicate in this party forms a momentary group with adjoining communication terminals and avoids the increase of the amount of communication attendant on broadcast by communicating only with the members of this group. The header consists of packet ID, valid time period of packet, hop count, group ID, originator ID, belonging to group time period, and error correcting code. Group ID **34** is a unique identifier given to a group [paragraphs 45, 46]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include within a transmitted packet, the life of the communication group and the group's ID as taught by Mizutani et al., in the communication method of Waesterlid, as modified by Kawaguchi et al., in order to allow users to communicate in a group with other member wireless communication devices.

Consider **claims 16, 22 and 26**, Waesterlid clearly shows and discloses mail exchange terminal device for exchanging mail with other mail exchange terminal devices via a communications network, comprising a memory that stores a program and data, a processor that executes said program, and a communications device that communicates with other mail exchange terminal devices, wherein said program stored in memory causes said processor to execute storing member information of existing members, who belong to a group for exchanging mail, in said memory in advance; computer-readable storage medium on which a program to be executed by each mail exchange terminal is

recorded; and a carrier wave having a program data signal (a connectionless status reporting method that allows members of an affinity group to send status information to and receive status information from other members of the affinity group, which is well-suited for mobile communication networks. Each communication device includes program memory **112** and a microprocessor **110**, wherein the microprocessor controls the operation of the device according to the instructions stored in the memory [fig. 2, pg. 2 lines 15-29, pg. 7 lines 17-28]); transmitting mail to mail exchange terminal devices of other members who belong to the group, via said communications network according to the stored member information; causing said communications device to transmit a withdrawal mail including information of withdrawal from the group to the mail exchange terminal devices of all other members according to the stored member information via said communications network; causing said communications device to receive the withdrawal mail, including information, indicating that another member is withdrawing from the group, from another mail exchange terminal device via said communications network (member of the affinity group can withdraw from the group by sending a resignation message to the group administrator. Receipt of a resignation message by the group administrator spawns a Group Update message deleting the resigning member from the group [pg. 12 lines 4]); group identification information indicating the group exchanging the mail is added to the mail to be exchanged among said terminal devices of the members who belong to the group, and the group identification information

comprises user information of the terminal device of a member who forms the group (the membership request message contains data corresponding to each member of the affinity group, wherein the member data may include, for example, the name, address, telephone number, and current status of each member. When a group update message is sent to a messaging server and then forwarded to each member of the affinity group. The group update message contains a list of all members of the group, including the newly added member [pg.12 line 28- pg. 13 line 7, pg. 14 lines 2-14]).

However, Waesterlid fails to specifically disclose that the resigning member deletes member information.

In the same field of endeavor, Kawaguchi et al. clearly show and disclose deleting member information of all members from said member information storage belonging to the group in response to the communications device transmitting the withdrawal mail, and deleting member information of said another member from said memory in response to said communications device receiving the withdrawal mail indicating that another member is withdrawing from the group (the leaving terminal **1D** transmits a leaving communication message **112** in a multicast manner to the constituting terminals of the CUG having the selected group identifier, and thereafter deletes the administration information entry having the group identifier from the group list **250B** and deletes the terminal list **260B** corresponding to the administration information entry. Upon receiving the leaving communication message **112**, other constituting terminals (**1A**, **1B**,

1C) of the CUG delete the address of the leaving terminal **1D** which the received message indicates from the terminal lists **260B** [paragraphs 6, 89-92]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to allow a new terminal to extract information about members of a closed communication group upon joining the group as taught by Kawaguchi et al., in the communication method of Waesterlid, in order to allow users to communicate in a group with other member wireless communication devices.

However, Waesterlid, as modified by Kawaguchi et al., fail to specifically disclose that the time the group is formed is included in correspondence.

In the same field of endeavor, Mizutani et al. clearly show and disclose a group identification information including user identification information of the terminal device of a member who forms the group and including a time when the group is formed (communication method to perform an on-demand type of group communication among a plurality of communication terminals, wherein a terminal that communicates sends a packet with appending the information about a valid time period of the group, as well as its own identification information, then a terminal that received the packet storing the identification information and the information about the valid time period that are included in the packet [fig. 3, paragraphs 12, 16]); wherein the group identification information is a unique identifier for each group, is generated at the terminal device of the member who forms the group, and is generated exclusively by the terminal device (A

communication terminal that desires to communicate in this party forms a momentary group with adjoining communication terminals and avoids the increase of the amount of communication attendant on broadcast by communicating only with the members of this group. The header consists of packet ID, valid time period of packet, hop count, group ID, originator ID, belonging to group time period, and error correcting code. Group ID **34** is a unique identifier given to a group [paragraphs 45, 46]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include within a transmitted packet, the life of the communication group and the group's ID as taught by Mizutani et al., in the communication method of Waesterlid, as modified by Kawaguchi et al., in order to allow users to communicate in a group with other member wireless communication devices.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAIME M. HOLLIDAY whose telephone number is (571)272-8618. The examiner can normally be reached on Monday through Friday 7:30am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Appiah can be reached on (571) 272-7904. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jaime M Holliday/
Examiner, Art Unit 2617

/Charles N. Appiah/
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